

ACM Transactions on Programming Languages and Systems

Volume 15 • 1993

Editor-in-Chief

Andrew W. Appel

Associate Editors

Lori Clarke

John R. Ellis

Gilles Kahn

Samuel N. Kamin

Leslie Lamport

Barbara H. Liskov

John C. Mitchell

Mary Lou Soffa

Jeanette M. Wing

William A. Wulf

Published by the Association for Computing Machinery

Copyright 1993 Association for Computing Machinery, Inc.
1515 Broadway, New York, NY 10036

Volume 15 • 1993

209 **Appel, A. W.** Editorial. (April 1993), 209–210.
743 **Appel, A. W.**, and **Graham, S. L.** Editorial. (Nov. 1993), 743.
208 Corrigendum. (Jan. 1993), 208.

Research Contributions

705 **Abadi, M.**, **Burrows, M.**, **Lamson, B.**, and **Plotkin, G.** A Calculus for Access Control in Distributed Systems. (Sept. 1993), 706–734.
73 **Abadi, M.**, and **Lamport, L.** Composing Specification. (Jan. 1993), 73–132.
182 **Afek, Y.**, **Brown, G.**, and **Merritt, M.** Lazy Caching. (Jan. 1993), 182–205.
206 **Allison, L.** See **Finlay, A.** (Jan. 1993), 206–207.
575 **Amadio, R. M.**, and **Cardelli, L.** Subtyping Recursive Types. (Sept. 1993), 575–631.
133 **Barbuti, B.**, **Giacobazzi, R.**, and **Levi, G.** A General Framework for Semantics-Based Bottom-Up Abstract Interpretation of Logic Programs. (Jan. 1993), 133–181.
795 **Bowman, M.**, **Debray, S. K.**, and **Peterson, L. L.** Reasoning About Naming Systems. (Nov. 1993), 795–825.
182 **Brown, G.** See **Afek, Y.** (Jan. 1993), 182–205.
367 **Burke, M.**, and **Torczon, L.** Interprocedural Optimization: Eliminating Unnecessary Recompilation. (July 1993), 367–399.
706 **Burrows, M.** See **Abadi, M.** (Sept. 1993), 706–734.
575 **Cardelli, L.** See **Amadio, R. M.** (Sept. 1993), 575–631.
494 **Carey, M. J.** See **Richardson, J. E.** (July 1993), 494–534.
400 **Chatterjee, S.** Compiling Nested Data-Parallel Programs for Shared-Memory Multiprocessors. (July 1993), 400–462.
36 **Cleaveland, R.**, **Parrow, J.**, and **Steffen, B.** The Concurrency Workbench: A Semantics-Based Tool for the Verification of Concurrent Systems. (Jan. 1993), 36–72.
463 **Consel, C.**, and **Khoo, S. C.** Parameterized Partial Evaluation. (July 1993), 463–493.
357 **Copperman, M.**, and **McDowell, C. E.** A Further Note on Hennessy's "Symbolic Debugging of Optimized Code." (Technical Correspondence). (April 1993), 357–365.
826 **Debray, S. K.**, and **Lin, N.-W.** Cost Analysis of Logic Programs. (Nov. 1993), 826–875.
795 **Debray, S.** See **Bowman, M.** (Nov. 1993), 795–825.
312 **Dhamdhere, D. M.**, and **Patil, H.** An Elimination Algorithm for Bidirectional Data Flow Problem Using Edge Placement. (April 1993), 312–336.
681 **Fidge, C. J.** A Formal Definition of Priority in CSP. (Sept. 1993), 681–705.
206 **Finlay, A.**, and **Allison, L.** A Correction to the Denotational Semantics for the Prolog of Nicholson and Foo. (Technical Correspondence). (Jan. 1993), 206–207.

ACM Transactions on Programming Languages and Systems

Volume 15 • 1993

Editor-in-Chief

Andrew W. Appel

Associate Editors

Lori Clarke

John R. Ellis

Gilles Kahn

Samuel N. Kamin

Leslie Lamport

Barbara H. Liskov

John C. Mitchell

Mary Lou Soffa

Jeanette M. Wing

William A. Wulf

Published by the Association for Computing Machinery

Copyright 1993 Association for Computing Machinery, Inc.
1515 Broadway, New York, NY 10036

Volume 15 • 1993

209 **Appel, A. W.** Editorial. (April 1993), 209–210.
743 **Appel, A. W.**, and **Graham, S. L.** Editorial. (Nov. 1993), 743.
208 Corrigendum. (Jan. 1993), 208.

Research Contributions

705 **Abadi, M.**, **Burrows, M.**, **Lamson, B.**, and **Plotkin, G.** A Calculus for Access Control in Distributed Systems. (Sept. 1993), 706–734.
73 **Abadi, M.**, and **Lamport, L.** Composing Specification. (Jan. 1993), 73–132.
182 **Afek, Y.**, **Brown, G.**, and **Merritt, M.** Lazy Caching. (Jan. 1993), 182–205.
206 **Allison, L.** See **Finlay, A.** (Jan. 1993), 206–207.
575 **Amadio, R. M.**, and **Cardelli, L.** Subtyping Recursive Types. (Sept. 1993), 575–631.
133 **Barbuti, B.**, **Giacobazzi, R.**, and **Levi, G.** A General Framework for Semantics-Based Bottom-Up Abstract Interpretation of Logic Programs. (Jan. 1993), 133–181.
795 **Bowman, M.**, **Debray, S. K.**, and **Peterson, L. L.** Reasoning About Naming Systems. (Nov. 1993), 795–825.
182 **Brown, G.** See **Afek, Y.** (Jan. 1993), 182–205.
367 **Burke, M.**, and **Torczon, L.** Interprocedural Optimization: Eliminating Unnecessary Recompilation. (July 1993), 367–399.
706 **Burrows, M.** See **Abadi, M.** (Sept. 1993), 706–734.
575 **Cardelli, L.** See **Amadio, R. M.** (Sept. 1993), 575–631.
494 **Carey, M. J.** See **Richardson, J. E.** (July 1993), 494–534.
400 **Chatterjee, S.** Compiling Nested Data-Parallel Programs for Shared-Memory Multiprocessors. (July 1993), 400–462.
36 **Cleaveland, R.**, **Parrow, J.**, and **Steffen, B.** The Concurrency Workbench: A Semantics-Based Tool for the Verification of Concurrent Systems. (Jan. 1993), 36–72.
463 **Consel, C.**, and **Khoo, S. C.** Parameterized Partial Evaluation. (July 1993), 463–493.
357 **Copperman, M.**, and **McDowell, C. E.** A Further Note on Hennessy's "Symbolic Debugging of Optimized Code." (Technical Correspondence). (April 1993), 357–365.
826 **Debray, S. K.**, and **Lin, N.-W.** Cost Analysis of Logic Programs. (Nov. 1993), 826–875.
795 **Debray, S.** See **Bowman, M.** (Nov. 1993), 795–825.
312 **Dhamdhere, D. M.**, and **Patil, H.** An Elimination Algorithm for Bidirectional Data Flow Problem Using Edge Placement. (April 1993), 312–336.
681 **Fidge, C. J.** A Formal Definition of Priority in CSP. (Sept. 1993), 681–705.
206 **Finlay, A.**, and **Allison, L.** A Correction to the Denotational Semantics for the Prolog of Nicholson and Foo. (Technical Correspondence). (Jan. 1993), 206–207.

735 **Ghosh, S.** An Alternative Solution to a Problem on Self-Stabilization. (Technical Correspondence). (Sept. 1993), 735-742.

133 **Giacobazzi, R.** See **Barbuti, R.** (Jan. 1993), 133-181.

659 **Gupta, G.**, and **Jayaraman, B.** Analysis of Or-Parallel Execution Models. (Sept. 1993), 659-680.

211 **Harper, R.**, and **Mitchell, J. C.** On the Type Structure of Standard ML. (April 1993), 211-252.

253 **Henglein, F.** Type Inference with Polymorphic Recursion. (April 1993), 253-289.

745 **Herlihy, M.** A Methodology for Implementing Highly Concurrent Data Objects. (Nov. 1993), 745-770.

563 **Huang, S.-T.** Leader Election in Uniform Rings. (July 1993), 563-573.

659 **Jayaraman, B.** See **Gupta, G.** (Sept. 1993), 659-680.

337 **Katz, S.** A Superimposition Control Construct for Distributed Systems. (April 1993), 337-356.

290 **Kfoury, A. J.**, **Tiuryn, J.**, and **Urzyczyn, P.** Type Recursion in the Presence of Polymorphic Recursion. (April 1993), 290-311.

463 **Khoo, S.C.** See **Consel, C.** (July 1993), 463-493.

73 **Lamport, L.** See **Abadi, M.** (Jan. 1993), 73-132.

706 **Lampson, B.** See **Abadi, M.** (Sept. 1993), 706-734.

771 **Leivent, J. I.**, and **Watro, R. J.** Mathematical Foundations for Time Warp Systems. (Nov. 1993), 771-794.

133 **Levi, G.** See **Barbuti, R.** (Jan. 1993), 133-181.

876 **Lin, H.** Procedural Implementation of Algebraic Specification. (Nov. 1993), 876-895.

826 **Lin, N.-W.** See **Debray, S. K.** (Nov. 1993), 826-875.

1 **Mattern, F.** See **Tel, G.** (Jan. 1993), 1-35.

357 **McDowell, C. E.** See **Copperman, M.** (April 1993), 357-365.

211 **Mitchell, J. C.** See **Harper, R.** (April 1993), 211-252.

535 **Odersky, M.** Defining Context-Dependent Syntax Without Using Contexts. (July 1993), 535-562.

632 **Palem, K. V.**, and **Simons, B. B.** Scheduling Time-Critical Instructions on RISC Machines. (Sept. 1993), 632-658.

312 **Patil, H.** See **Dhamdhere, D. M.** (April 1993), 312-336.

36 **Parrow, J.** See **Cleaveland, R.** (Jan. 1993), 36-72.

795 **Peterson, L. L.** See **Bowman, M.** (Nov. 1993), 795-825.

706 **Plotkin, G.** See **Abadi, M.** (Sept. 1993), 706-734.

494 **Richardson, J. E.**, **Carey, M. J.**, and **Schuh, D. T.** The Design of the E Programming Language. (July 1993), 494-534.

494 **Schuh, D. T.** See **Richardson, J. E.** (July 1993), 494-534.

632 **Simons, B. B.** See **Palem, K. V.** (Sept. 1993), 632-658.

36 **Steffen, B.** See **Cleaveland, R.** (Jan. 1993), 36-72.

1 **Tel, G.**, and **Mattern, F.** The Derivation of Distributed Termination Detection Algorithms from Garbage Collection Schemes. (Jan. 1993), 1-35.

290 **Tiuryn, J.** See **Kfoury, A. J.** (April 1993), 290-311.

367 **Torczon, L.** See **Burke, M.** (July 1993), 367-399.

290 **Urzyczyn, P.** See **Kfoury, A. J.** (April 1993), 290-311.

771 **Watro, R. J.** See **Leivent, J. I.** (Nov. 1993), 771-794.